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Part II

**Department of
Transportation**

**Research and Special Programs
Administration**

49 CFR Parts 171 and 173

**Periodic Inspection and Requalification of
Acetylene Cylinders; Final Rule**

DEPARTMENT OF TRANSPORTATION

Research and Special Programs
Administration

49 CFR Parts 171 and 173

[Docket No. HM-23, Amdt. Nos. 171-14,
173-229]

RIN 2137-AB61

Periodic Inspection and
Requalification of Acetylene CylindersAGENCY: Research and Special Programs
Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: RSPA is amending the Hazardous Materials Regulations (HMR; 49 CFR parts 171-180) to require regular inspection and periodic requalification of acetylene cylinders. This rule was developed, in part, in response to a petition for rulemaking submitted by the Compressed Gas Association, Inc. (CGA). It establishes standards for the periodic requalification of acetylene cylinders, establishes a schedule for retesting and requalifying acetylene cylinders, and requires the cylinders to be visually inspected externally before each filling. The intended effect of these regulatory changes is to improve the safe transportation of acetylene through detection of cylinder deficiencies.

DATES: These amendments are effective on January 15, 1992. However, compliance with the regulations, as amended herein, is authorized immediately.

The incorporation by reference of the publication listed in this amendment is approved by the Director of the Federal Register as of January 15, 1992.

FOR FURTHER INFORMATION CONTACT: Eileen Edmonson, (202) 366-4488, Office of Hazardous Materials Standards, Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590-0001.

SUPPLEMENTARY INFORMATION:**I. Background**

On June 14, 1990, the Research and Special Programs Administration (RSPA) published a notice of proposed rulemaking (NPRM) in the Federal Register under Docket No. HM-23, Notice No. 90-11 (55 FR 24210), to solicit comments on a proposal to require the periodic inspection and requalification of DOT 8 and 8AL specification cylinders according to procedures contained in 49 CFR 173.34(e) and CGA Pamphlet C-13, entitled "Guidelines for the Periodic Visual Inspection and Requalification of Acetylene Cylinders."

1985 edition. This action was taken in response to a petition submitted by the Compressed Gas Association, Inc. (CGA; P-0981).

RSPA received 30 comments in response to the NPRM from shippers, cylinder manufacturers, consultants, trade associations, and Federal and State agencies. Overall, the commenters supported the proposed rule as an important safety measure; however, several recommended changes to the proposal.

Retesters and Registration

RSPA proposed that persons who perform requalifications of acetylene cylinders must hold a valid retester's identification number in accordance with § 173.34(e) of the HMR. While most commenters were in favor of retesters registering with RSPA, some commenters requested that only retesters working with acetylene or those demonstrating an acceptable knowledge of acetylene be permitted to inspect and requalify DOT 8 and 8AL cylinders. However, no commenter offered any criteria on what should constitute "acceptable knowledge."

Several commenters suggested that RSPA use a different identification numbering system for identifying qualified acetylene cylinder retesters than used for retesters of other cylinder types. Under the current procedures used for registering persons under § 173.34(e), upon written request, RSPA sends to applicants an informational package containing procedures for completing an application, a list of minimum requirements, and a list of approved independent inspection agencies. An applicant arranges to have an independent inspection agency inspect its facility and evaluate the equipment and staff on their ability to properly inspect each type of DOT specification cylinder for which the applicant wants to qualify. Upon completion of a satisfactory evaluation, the applicant submits the necessary information in writing to RSPA. RSPA reviews this information and provides the applicant with a letter of registration bearing a unique retester's identification number if the person meets the required qualifications. The identification number must be displayed at the facility and is valid for 5 years, provided the applicant maintains the equipment and testing capability. Because RSPA's current registration system permits a retester to requalify only those cylinders he has the ability to inspect, RSPA believes establishing a different identification system for registering acetylene cylinder retesters is unnecessary and, therefore,

has not adopted these commenters' suggestions.

CGA Pamphlet C-13

As petitioned by CGA, RSPA proposed that CGA Pamphlet C-13 be incorporated by reference for use in the inspection and requalification of acetylene cylinders. The pamphlet contains detailed procedures on inspecting acetylene cylinders and has been used as an industry consensus standard since 1985. Several commenters expressed concerns about the deficiencies of the tools (such as probes, clearance gauges, mirrors and lights) and the procedures used to inspect acetylene cylinders as prescribed in CGA Pamphlet C-13. The National Transportation Safety Board (NTSB) recommended that retesters should use a standard clearance gauge when examining the condition of the cylinder filler material to provide more consistent results. Another commenter suggested that, in addition to using CGA Pamphlet C-13, all trained retesters should be provided with a procedural manual.

RSPA recognizes the merit of these suggestions. Because RSPA believes CGA Pamphlet C-13 is adequate for requalifying cylinders, companies may use CGA Pamphlet C-13 as a minimum inspection standard. Also, though RSPA recognizes that the accuracy of these tests can be improved by using standardized clearance gauges, a single standardized gauge is not sufficient. Gauges are designed differently to accommodate the various cylinder sizes and openings. Therefore, to assist retesters, RSPA strongly encourages manufacturers to develop clearance gauges for each acetylene cylinder design type they manufacture. Manufacturers and retesters are also encouraged to examine their current gauges to determine if they are accurate in measuring the clearance and detecting inconsistencies in the cylinders.

The NTSB asked that the terms and test procedures contained in CGA Pamphlet C-13 be more clearly defined, that any subjectivity in the tests be removed, and that the pamphlet be made more consistent with current regulations before it is incorporated by reference into § 171.7. In particular, the NTSB expressed concern with two sections in CGA Pamphlet C-13: (1) Section 4.7.2, "Filler Inspection," which addresses testing the integrity of the filler through the valve opening with a tool, wire probe, or finger, and (2) Section 4.7.3, "Filler Clearance Measurement," which addresses the